

ICTS Astrophysics & Relativity Seminar

- Title** : What's Missing in the Low-redshift Intergalactic Medium?
- Speaker** : Vikram Khaire (Indian Institute for Space Science and Technology, Thiruvananthapuram)
- Date** : Thursday, 27th June 2024
- Time** : 03:30 PM (IST)
- Abstract** : Understanding the intergalactic medium is essential for comprehending galaxy evolution and structure formation. While our theoretical understanding of the high-redshift intergalactic medium ($z > 2$) aligns well with observations, the low- z intergalactic medium ($z < 1$) presents significant challenges. Observations reveal that over 30% of the gas predicted by the standard model of the Universe remains unaccounted for, and the distribution of Doppler widths in the low- z Lyman alpha forest eludes accurate reproduction in all existing simulations. There are still unexplored periods spanning 5 to 10 billion years of cosmic time where measurements of the UV ionizing background and the thermal state of the intergalactic medium are lacking. Additionally, the impact of galaxy formation feedback on the intergalactic medium, particularly at low redshifts, cannot be ignored. In this talk, the speaker will address these pressing issues, focusing on new measurements of the thermal state of the intergalactic medium that suggests something is missing in either simulations or theoretical understanding of the intergalactic medium.
- Venue** : Feynman lecture hall
- Zoom Link: <https://icts-res-in.zoom.us/j/99383036529?pwd=G5nmxYlt7V61RCymeJjWjU3X6xDV9J.1>
Meeting ID: 993 8303 6529
Passcode: 272728